

- **Example 90.** Let $\Sigma = \{a, b\}$. Can we devise an FSA to recognise only all strings in which the number of a 's is equal to number of b 's? If yes, draw it. If no, why?
 - **Example 91.** Let $\Sigma = \{0,1\}$. Can we devise an FSA to recognise only all strings that are palindrome? If yes, draw it. If no, why?
 - **Example 92.** Prove the FSA that you devised in Example 87, [here](#), is correct.
 - **Example 93.** Prove the FSA that you devised in Example 88, [here](#), is correct.
 - **Example 94.** Let $\Sigma = \{0,1\}$. Devise an FSA to recognize only all strings that their 2nd last symbol is 0. Prove your FSA is correct.
 - **Example 95.**
 - A) **Intuitively** devise an FSA to recognize $L_{87} \cap L_{88}$.
 - B) **Systematically** devise an FSA to recognize $L_{87} \cap L_{88}$, use the approach proposed [here](#).
- Note** $L_{95} = \{\omega \in \{a, b\}^* \mid \omega \text{ has even number of } b\text{'s and the number of } b\text{'s is a multiple of 3}\}$

We do not intend to publish solutions (or solutions outline) for any of the questions of the course notes, or extra practices. You are more than welcome to discuss your solutions with us.